

DOCKET NO.: 209081US0PCT

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

IN RE APPLICATION OF:

Narinobu KAGAMI, et al.

SERIAL NO: 09/868,628

FILED: June 26, 2001

FOR: HYDROGENATION CATALYST FOR HYDROCARBON OIL, CARRIER  
FOR IT, AND METHOD OF HYDROGENATION OF HYDROCARBON OIL



GROUP: 1754

EXAMINER: NGUYEN, C.N.

**PRE-APPEAL BRIEF REQUEST FOR REVIEW**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a Notice of Appeal.

The review is requested for the reason(s) stated on the attached sheet(s). No more than five (5) pages are provided.

I am the attorney or agent of record.

Respectfully Submitted,

OBLON, SPIVAK, McCLELLAND,  
MAIER & NEUSTADT, P.C.  
Norman F. Oblon

A handwritten signature in black ink, appearing to read "H. A. Pitlick", written over a horizontal line.

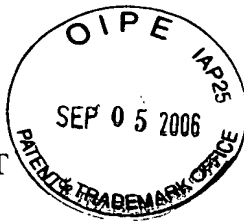
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NARINOBU KAGAMI, ET AL. : EXAMINER: NGUYEN, CAM N.  
SERIAL NO: 09/868,628 :  
FILED: JUNE 26, 2001 : GROUP ART UNIT: 1754  
FOR: HYDROGENATION CATALYST :  
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PRE-APPEAL BRIEF REQUEST FOR REVIEW

COMMISSIONER FOR PATENTS  
ALEXANDRIA, VIRGINIA 22313

SIR:

Applicants hereby request review of the findings of fact and conclusions of law made in the Final Office Action dated May 4, 2006. An amendment under 37 CFR 1.116 was filed August 15, 2006. No response from the Examiner has yet been received. A Notice of Appeal is **submitted herewith**.

It is assumed that the above amendment will be entered, since it raises no new issues. Nevertheless, the invention, as embodied, for example, in Claim 1, is drawn to a hydrogenation catalyst for hydrocarbon oil, produced by a method comprising:

impregnating a refractory alumina carrier with a solution comprising a salt of a titanium-peroxohydroxycarboxylic acid, then further

impregnating with an aqueous solution containing at least one metal compound of Group 6 and at least one metal compound of Groups 8 to 10 of the Periodic Table so that it carries the metal compounds, and thereafter

**calcining it at temperature not higher than 300°C.**

(Emphasis added.)

Claims 1, 4, 7-8, 36-38 and 60-67 stand rejected under 35 U.S.C. § 102 (b) as anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as obvious over, US 4,080,286 (Yanik et al).

Yanik et al's catalyst is prepared by successively impregnating an inorganic oxide carrier with a transition metal followed by heating the metal-impregnated carrier. Yanik et al exemplifies only heating at 121°C for 16 hours, followed by calcining at 538°C for 16 hours. No other calcining temperature is disclosed.

Applicants have described in the specification at page 21, lines 2-11, the importance of calcining at a temperature no higher than 300°C, and have provided IR spectroscopy data for a catalyst according to the presently-claimed invention and a catalyst, represented by Comparative Example 2 herein, which was heated at 500°C for three hours, referred to a catalyst 5. The data show that the catalyst according to the present invention is 36% more active than catalyst 5.

The Examiner's response to all of the above is that the calcining limitation of the present claims is a process limitation, and thus has no bearing on patentability of the present product-by-process claims, and that it would have been obvious to optimize the calcining temperature as a result-effective variable.

In reply, process limitations may not be dismissed when the evidence is clear that they affect the product produced. Applicants have convincingly shown that the calcining temperature does affect the properties of the final product, and thus the final product itself.

Nor is there any indication in Yanik et al that calcining temperature is a result-effective variable. Thus, the present claims are patentable under the rationale of *In re Antonie*, 559 F.2d 618, 195 USPQ 6, 8-9 (CCPA 1977) (exceptions to rule that optimization of a result-effective variable is obvious, such as where the results of optimizing the variable are unexpectedly good or where the variable was not recognized to be result effective).

Applicants are entitled to prevail under either of the above exceptions.

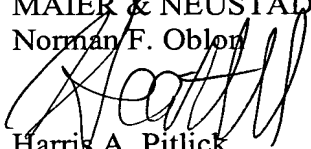
For all the above reasons, it is respectfully requested that this rejection be withdrawn.

The rejection of Claims 1, 7-8 and 60-67 under 35 U.S.C. § 112, second paragraph, is respectfully traversed. Applicants believe that the rejection will be moot with entry of the above-discussed amendment. Accordingly, it is respectfully requested that this rejection be withdrawn.

Respectfully submitted,

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